

## Nemaha County

### Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors 6/27/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 23 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Nemaha County economy.<sup>1</sup>

These 23 sectors have a total direct output of approximately **\$931.6 million** and support **2,812 jobs** in Nemaha County. Running the model for all 23 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Nemaha County Economy					
Contribution Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>
Direct Effect	1728.6	22.38%	\$224,096,343	37.88%	\$931,580,104
Indirect Effect	598.3	7.75%	\$50,858,368	8.60%	\$97,719,837
Induced Effect	485.5	6.29%	\$30,196,694	5.10%	\$61,641,256
<b>Total Effect</b>	<b>2812.4</b>	<b>36.42%</b>	<b>\$305,151,405</b>	<b>51.58%</b>	<b>\$1,090,941,197</b>

As shown in the above table, agriculture, food, and food processing sectors support **2,812 jobs**, or **36.42%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 23 agriculture, food, and food processing sectors is approximately **\$305.1 million**, or **51.58% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the dog and cat food manufacturing sector is the top employer with **369 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Nemaha County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	368.5	\$59,696,958
Animal production, except cattle and poultry and eggs	361.2	\$57,426,763
Dog and cat food manufacturing	355.1	\$444,429,695
Wholesale trade	204.6	\$41,594,634
Farm machinery and equipment manufacturing	153.5	\$60,109,539
Other animal food manufacturing	131.0	\$165,029,834
Truck transportation	103.6	\$17,972,358
Support activities for agriculture and forestry	85.6	\$3,029,246
Grain farming	78.9	\$39,322,037
Hospitals	61.7	\$8,167,435

The dog and cat food manufacturing sector directly contributes approximately **\$444.4 million** to the Nemaha County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Dog and cat food manufacturing	355.1	\$444,429,695
Other animal food manufacturing	131.0	\$165,029,834
Farm machinery and equipment manufacturing	153.5	\$60,109,539
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	368.5	\$59,696,958
Animal production, except cattle and poultry and eggs	361.2	\$57,426,763
Oilseed farming	36.1	\$50,878,082
Wholesale trade	204.6	\$41,594,634
Grain farming	78.9	\$39,322,037
Dairy cattle and milk production	51.0	\$23,307,910
Dry, condensed, and evaporated dairy product manufacturing	15.0	\$19,792,041

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Nemaha County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	36.1	\$50,878,082.28
Grain farming	78.9	\$39,322,036.74
Vegetable and melon farming	0.0	\$8,032.53
Fruit farming	1.4	\$133,112.36
Tree nut farming	0.4	\$80,954.54
Greenhouse, nursery, and floriculture production	2.2	\$337,561.13
All other crop farming	19.8	\$2,091,699.12
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	368.5	\$59,696,956.63
Dairy cattle and milk production	51.0	\$23,307,909.01
Poultry and egg production	0.5	\$477,342.43
Animal production, except cattle and poultry and eggs	361.2	\$57,426,761.63
Commercial logging	1.3	\$33,974.33
Commercial hunting and trapping	1.2	\$24,357.78
Support activities for agriculture and forestry	85.6	\$3,029,245.62
Dog and cat food manufacturing	355.1	\$444,429,687.50
Other animal food manufacturing	131.0	\$165,029,830.93
Dry, condensed, and evaporated dairy product manufacturing	15.0	\$19,792,041.78
Meat processed from carcasses	1.9	\$902,706.86
Bread and bakery product, except frozen, manufacturing	10.0	\$1,108,116.27
Frozen cakes and other pastries manufacturing	0.6	\$93,337.33
Farm machinery and equipment manufacturing	153.5	\$60,109,539.03
Veterinary services	19.7	\$1,920,655.37
Landscape and horticultural services	33.7	\$1,346,150.76

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Nemaha County, the retail sector was omitted.